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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/867,049	05/29/2001	Kai Nyman	NC28444A	7666

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EXAMINER

DAVIS, ZACHARY A

ART UNIT PAPER NUMBER

2137

DATE MAILED: 04/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/867,049	Applicant(s) NYMAN ET AL.	
	Examiner Zachary A. Davis	Art Unit 2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 January 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 and 37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-35 and 37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>20060113</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 13 January 2006 has been entered. By this submission, Claims 1, 13, 25, 35, and 37 have been amended. No claims have been added or canceled. Claims 1-35 and 37 are currently pending in the present application.

Response to Arguments

2. Applicant's arguments with respect to claims 1-35 and 37 have been considered but are moot in view of the new ground(s) of rejection.

Specification

3. The disclosure is objected to because of the following informalities:

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On page 1, in paragraph 01 of the specification, reference is made to the parent application filed 15 May 2001, entitled "Authentication in Data Communication", but the application is not identified by its application number. Rather, the specification only lists "Application No. NA". The application must be identified by application number (in this case, 09/858,264) and present status if abandoned or issued (in the present case, abandoned).

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 25-34 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 25 and 30 each recite the limitation "the communication system" (in line 7 of each claim). There is insufficient antecedent basis for this limitation in the claims, as it appears that this is distinct from the "mobile telecommunication network" recited in lines 4-5 of each of Claims 25 and 30.

Claims 26-29 and 31-34 are rejected due to their dependence on a rejected base claim.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-10, 13-22, 25-35, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heikkinen, International Patent Application Publication WO00/58920, in view of Turtiainen, US Patent 6430407.

In reference to Claim 1, Heikkinen discloses a method for authenticating including receiving at a client from a mobile station request from a subscriber (page 6, lines 15-16; page 6, lines 23-26), sending the identity from the client to an authentication block of a network, receiving at the client a challenge from the authentication block, sending the challenge to a subscriber identity module, receiving a response to the challenge at the client, and authenticating the client (page 7, lines 7-18, where authentication can be performed using a network, using a challenge and answer format). However, Heikkinen does not explicitly disclose that a mobile telecommunication network is separate from the communication system to which the authentication is being performed.

Turtiainen discloses a method for authenticating a client to a communication system including receiving a subscriber identity from a mobile station (column 9, lines 29-37 and 45-49) where a mobile telecommunication network is separate from the

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communication system to which the client is being authenticated (column 8, lines 1-7), sending the subscriber identity, receiving a challenge and a secret, and using a response to the challenge and the secret to authenticate the client (column 10, lines 22-39). Turtiainen further discloses the client and mobile station communicating directly (column 10, lines 51-56). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Heikkinen to include the features taught by Turtiainen, in order to free a user from the need to carry a separate authentication device or many different authentication devices (see column 5, lines 20-42).

In reference to Claims 2, 3, and 8, Heikkinen and Turtiainen further disclose receiving a PIN (see Turtiainen, column 10, lines 26-30) and encrypting the PIN (Turtiainen, column 9, line 66-column 10, line 9).

In reference to Claims 4 and 5, Heikkinen and Turtiainen further disclose encrypting and transmitting the response (see Turtiainen, column 10, lines 6-9).

In reference to Claims 6 and 7, Heikkinen and Turtiainen further disclose that the transmissions and receptions are performed wirelessly (see Heikkinen, page 6, lines 23-31; see also Turtiainen, column 6, lines 18-25).

In reference to Claims 9 and 10, Heikkinen and Turtiainen further disclose that the wireless transmissions can use an infrared signal or a radio signal (see Heikkinen, page 6, lines 29-31; see also Turtiainen, column 10, lines 51-55).

In reference to Claim 25, Heikkinen discloses a method including retrieving a subscriber identity from a subscriber identity module in a mobile station (page 7, lines 4-6), wirelessly sending the subscriber identity from the mobile station to a client for authentication (page 7, lines 6-9; page 6, lines 23-26), wirelessly receiving at the mobile station a challenge from the client, generating a response to the challenge at the mobile station, and wirelessly sending the response from the mobile station to the client (page 7, lines 7-18, where authentication can be performed using a network, using a challenge and answer format). However, Heikkinen does not explicitly disclose a communication system distinct from the mobile telecommunication network.

Turtiainen discloses a method including retrieving and sending a subscriber identity (column 9, lines 29-37 and 45-49), receiving a challenge, and generating and sending a secret in response to the challenge (column 10, lines 22-39). Turtiainen further discloses the client and mobile station communicating directly (column 10, lines 51-56) but that a mobile telecommunication network is distinct from the communication system to which the client is being authenticated (column 8, lines 1-7). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Heikkinen to include the features taught by Turtiainen, in order to free a user from the need to carry a separate authentication device or many different authentication devices (see column 5, lines 20-42).

In reference to Claims 26, 27, 28, and 29, Heikkinen and Turtiainen further disclose receiving a request containing an encrypted PIN and confirming the PIN (see Turtiainen, column 9, line 66-column 10, line 9; and column 10, lines 22-39).

Claims 13-22 and 30-34 are apparatus claims corresponding substantially to the methods of Claims 1-10 and 25-29, respectively, and are rejected by a similar rationale.

Claim 35 is directed to software implementations of the method of Claim 7, and is rejected by a similar rationale. Similarly, Claim 37 is directed to a software implementation of the method of Claim 25, and is rejected by a similar rationale.

8. Claims 11, 12, 23, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heikkinen in view of Turtiainen as applied to claims 8 and 20 above, and further in view of Lightman et al, US Patent 6711414.

In reference to Claims 11 and 12, Heikkinen and Turtiainen disclose everything as applied to Claim 8 above. Heikkinen and Turtiainen also disclose that the wireless transmissions can have any "suitable operational connection" (see Turtiainen, column 10, lines 53-54); however, Turtiainen does not explicitly disclose the use of a low power radio signal or an acoustic signal for the wireless transmissions.

Lightman discloses a wireless communication apparatus that can transmit wireless signals using an infrared signal, a Bluetooth (low power radio) signal, a radio frequency signal, or an acoustic signal (column 6, lines 36-53). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Heikkinen and Turtiainen to use a low power radio signal or acoustic signal for the wireless transmissions, in order to allow the wireless communication devices to easily transmit to and receive from other devices, and to

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allow the wireless devices to interact with other devices and their surroundings (see Lightman, column 3, lines 19-28).

Claims 23 and 24 are apparatus claims corresponding substantially to the methods of Claims 11 and 12, and are rejected by a similar rationale.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zachary A. Davis whose telephone number is (571) 272-3870. The examiner can normally be reached on weekdays 8:30-6:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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EMMANUEL L. MOISE
SUPERVISORY PATENT EXAMINER